

REMARKS

The applicant has amended claims 6 and 12 as suggested by the Examiner in order to overcome the 35 U.S.C. 112, second paragraph rejection. Support for newly added claims can be found in the specification describing the preferred embodiments. Claim 24 is narrower than claim 6 and requires a composition which consists essentially of a copolymer which consists essentially of... The applicant believes that no new matter has been added.

Claims 6 and 12 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 6 and 10-13 are rejected as being unpatentable over Hossel et al. (US 2001/0021375 A1, cited previously) ("Hossel '375"). Claims 6 and 8-13 are rejected as being unpatentable over Hossel '375 in view of Hossel et al. (US 6,191,188 B1, cited previously) ("Hossel '188"). The applicant respectfully traverses these rejections.

35 U.S.C. 112 Second Paragraph, Rejection

Claims 6 and 12 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. For the above reasons this rejection should be withdrawn.

Rejection over Hossel '188

Claims 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hossel '188. Again as previously stated in the applicant's last response, the PCT counterpart of Hossel '188 (WO 9831328) is disclosed in the applicant's specification at page 2 starting at line 20. Hossel '188 describes an aqueous composition comprising a copolymer a) based on N-vinylcaprolactam (VCap), N-vinylpyrrolidone (VP) and N-vinylimidazole (VI) and at least one polyoxyethylene C₆-C₁₅ monoalkyl ether b).

In the present application cosmetic preparations are disclosed which comprise polymers which comprise certain amounts of monomers A to D and polymer E, wherein components D and E are optional. The different polymers are comparable insofar that polymer a) in is based on monomers A to D of the present application and polymer b) in Hossel '188 is selected from polymer E of the present application.

The present application differs from Hossel '188 with regard to a number of features: First, in the case that the polymer inventively used according to the present application is based on monomers A to C only, it does not require polymer b) of Hossel '188 which is essential for their invention renders Hossel '188. It is acknowledged that the applicant's optional polymer E can include the required component b of Hossel '188 (polyoxyethylene C₆-C₁₅ -monoalkyl ether).

In the present application, polymers are used that comprise certain amounts of A to C (and optional components D) and E) which renders them different from the mere mixtures of the two polymers a) and b) described in Hossel '188. Therefore, the applicant's claimed cosmetical composition is different from the composition of Hossel '188.

In addition, the applicant respectfully disagrees with the Examiner comment on the middle of page 4 of the office action, that the inventively used polymer with at least three monomers and exhibiting a monomer composition different from the polymer disclosed in Hossel '188 would be available by routine optimization.

One of the problems to be solved by the present application was to provide polymers that give clear hair fixing gels. The polymers of Hossel '188 did not recognize this problem and are not able to solve the problem (see Example 1 a) at page 36 of the specification [(60 % VP (vinyl pyrrolidone), 10 % VI (vinylimidazole) and 30% VCap (vinylcaprolactam))]. The results were considered 4-5 (4 is cloudy and 5 is milky) see page 34 of the specification. Example 1b), at

page 36 of the specification, is outside the scope of the applicant's claimed invention achieved results of 4-5 (cloudy or milky) with VP/VI/VCap (37/3/60). Furthermore, Hossel '188 does not teach how the polymers might be adjusted to solve the problem.

Suitable polymers a) in Hossel '188 comprise (a) from 20 to 80% by weight, preferably from 40 to 60% by weight, of N-vinylcaprolactam, (VCap) (b₁) from 10 to 60% by weight, preferably from 20 to 50% by weight, of N-vinylpyrrolidone(VP), (c₁) from **5 to 50% by weight, preferably from 7 to 20% by weight, of N-vinylimidazole** (VI) or quaternized N-vinylimidazole, and optionally (d₁), and where the monomer (c₁) employed is a nonquaternized N-vinylimidazole, advantageously by subsequent quaternization of the polymer (see Hossel '188 at col. 2, line 3 to 19). **Component C₁(VI) is outside the scope of the applicant's claimed invention** (the applicant claims at most 4% compared to at least 5% by Hossel '188). For this reason alone the rejection should be withdrawn.

The next difference is the claimed ratio of monomer C to monomer B. The applicant uses a very low amount of monomer C (VI). Transferred to Hossel '188 it would mean that the amount of monomer C (VI) must be as low as (60% VP/14 (applicant's claimed ratio)) = **4.29%** by weight or less (1:14 with regard to 60% by weight VP; the ratio 1:14 is presented in claim 12 of the present application) or as low as **2.61 % by weight** or less (1:23 with regard to 60 % by weight VP; the ratio 1:23 is presented in claim 13 of the present application). Again Hossel '188 requires a minimum of 5% by weight of monomer C.

This is related to a distance of 14 % [(5-4.29)/5] and 48 % [(5-2.61)/5], respectively, away from the lower limit of 5 weight % of the amount of VI in Hossel '188. Thus, it cannot be stated that routine optimization would have led the artisan to the present invention. Therefore, the teachings of Hossel '188 would not have allowed the one skilled in the art to choose the very low amounts of VI. In fact, Hossel '188 teaches away from the inventive low amounts of the

present application.

Furthermore, monomer C of the present invention is exclusively employed in non-quaternized form whereas Hossel '188 prefers to use VI in quaternized form as quaternized monomer or by quaternization subsequent to polymerization (col.2, lines 3 to 19).

Again, the applicant respectfully disagrees to the Examiners opinion that the term "consist essentially of" does not concern the polymer itself, but excludes materials within the composition (page 6 of the Office Action). The term "consisting essentially of" would exclude any material that would effect the claimed copolymer. The applicant has informed the undersigned that any charge in a polymer chain will effect the properties of this chain, e.g. adhesion to a substrate. Thus, the use of a quaternized monomer and/or a post-polymerization quaternization will produce polymers with different properties when compared to the unquaternized polymer. Secondly, it is not clear to us how the term "(co)polymer consisting essentially of" can be construed in such a way that it shall exclude materials within the composition. This term reads directly on the polymer and its monomer units and not on the compositions comprising the inventive polymer. For the above reasons this rejection should be withdrawn.

Rejection Over Hossel '375 in View of Hossel '188

Claims 6-7 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hossel '375 in view of Hossel '188.

Hossel '188 is discussed above. Hossel '375 disclose mixtures comprising A) at least one copolymer obtainable by (i) free-radically initiated solution polymerization of a monomer mixture [of further defined monomers (a) to (e) with (a) and (b) being required], and (ii) subsequent partial or complete quaternization or protonation of the polymer where the monomer (a)

is not quaternized or only partially quaternized and B) at least one inorganic UV filter (see the abstract and paragraph nos. [0009], [0010], [0011], [0017], [0018]).

The polymers of Hossel '375 are employed exclusively in a quaternized form. It is obvious that a quaternized polymer is different from the inventively employed polymer comprising unquaternized VI monomer units. Thus, Hossel '375 cannot render the present invention obvious. In contrast, the teachings of Hossel '375 would not have allowed the one skilled in the art to choose a nonquaternized polymer. For the above reasons, these rejections should be withdrawn.

Thus, Hossel '375 in combination with Hossel '188 does not render the presently claimed invention obvious. For the above reasons, this rejection should be withdrawn.

The applicant believes that the newly added claims are narrower in scope and clearly patentable.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

A two month extension has been paid. Applicant believes no additional fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 12810-00039-US from which the undersigned is authorized to draw.

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Respectfully submitted,

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